

REMARKS

Claims 31-32, 42-43, 54-55 and 65-66 have been canceled without prejudice. Claim 53 has been amended to provide antecedent basis for the "bends". Claims 23-30, 33-34, 36-41, 44-45, 47-53, 56-57, 59-64 and 67 are currently pending. Reexamination and allowance of the pending claims is respectfully requested.

I. Specification and Section 112, first paragraph

The Examiner has objected to the specification because the following phrases are not set forth in identical manner in the specification: "cells having exactly twelve bends and being non-symmetrical about the longitudinal axis", "twelve bends comprise a spring element", "central bottom bend", "an internal angle that is less than ninety degrees", "three of the twelve bends define acute apices", and "first longitudinal row of cells and a second adjacent longitudinal row of cells ... having a different orientation". The Examiner has also rejected certain claims under 35 U.S.C. Section 112, first paragraph, based on this reason.

To begin with, Applicant has canceled claims 31-32, 42-43, 54-55 and 65-66 without prejudice, thereby rendering moot the issue relating to the "spring element".

Applicant has amended the specification to include the above phrases. It is respectfully submitted that these amendments do not introduce any new matter for the following reasons:

a. "cells having exactly twelve bends and being non-symmetrical about the longitudinal axis"

First, it is well-known that the drawings are considered to be part of the specification. Applicant has added this language to the specification using references to original FIG. 15A, and the same numeral designations in FIG. 15A without amending FIG. 15A. In addition, the added language is based on the original disclosure on page 14, lines 15-16 of the specification, which states that: "each strut 24m, 30m, 36m and 42m has one internal point of inflection 64m and one external point of inflection 62m". Since the description that has been added (i.e., twelve bends and non-symmetrical nature in each cell) relies entirely on what was originally disclosed in the specification and in FIG. 15A, it is submitted that no new matter is being introduced.

b. "central bottom bend"

Applicant has added the sentence "the apex 54m is a bottom bend" at the end of the sentence on line 31 of page 14. Here, original FIG. 15A clearly illustrates that 54m is a

bend at the central bottom part of each cell 22m, and page 14, lines 28-31 describes 54m as being an apex that is "inverted internally into the cell 22m". Thus, it is submitted that the sentence "the apex 54m is a bottom bend" does not introduce any new matter.

- c. "an internal angle that is less than ninety degrees" and "three of the twelve bends define acute apices"

Applicant has added the following sentence to specifically set forth this language:

"As best shown in FIG. 15A, three of the apices (i.e., between struts 24m and 30m, between struts 36m and 42m, and between struts 24m and 36m) define an internal angle that is less than ninety degrees (i.e., acute angles)."

FIG. 15A clearly shows that the angles referred to are less than 90 degrees. Since it is well-known that the drawings are considered to be part of the specification, it is submitted that no new matter is being introduced. In addition, since it is well-known in basic mathematics that acute angles are angles that are less than 90 degrees, it is further submitted that no new matter is being introduced.

- d. "first longitudinal row of cells and a second adjacent longitudinal row of cells ...having a different orientation"

Applicant has added this language to the specification using references to original FIG. 15A, and the same numeral designations in FIG. 15A without amending FIG. 15A. In addition, the added language is based on the original disclosure on page 14, lines 21-24 of the specification, which states that:

"the pattern of cells 22m can define a second pattern of cells 22y that have about the same configuration as the cells 22m, but reversed about a horizontal axis defined by the apices 48m and 50m."

This sentence means that the first longitudinal row of cells and a second adjacent longitudinal row of cells have a different orientation. Since the added language relies entirely on what was originally disclosed in the specification and in FIG. 15A, it is submitted that no new matter is being introduced.

In light of the above, it is respectfully submitted that the specification and drawings now provide antecedent basis for all claimed subject matter, and that the Section 112, first paragraph, rejection has been overcome.

II. Substantive Rejection

Claims 23-26, 28, 29, 31-34, 36, 37,, 39, 40, 42-45, 47-49, 51, 52, 54-57, 59, 60, 62,

63 and 65-67 stand rejected under 35 U.S.C. 102(e) as being anticipated by USP 5,980,553 to Gray et al. ("Gray"). This rejection is respectfully traversed.

Independent claims 23, 34 and 57 all recite that each cell has exactly twelve bends. In contrast, the cell shown in FIG. 3A of Gray has ~~sixteen~~ bends. Attached is a copy of FIG. 3A where the undersigned has labeled the sixteen bends with the numerals 1 to 16. In fact, it can be argued that "17" and "18" labeled in attached FIG. 3 are also bends. Thus, independent claims 23, 34 and 57 are allowable over Gray.

Independent claim 45 recites that each of the four struts of the cell has exactly two spaced-apart bends. In contrast, not all the struts in the cell of FIG. 3A of Gray have exactly two spaced-apart bends. For example, referring to the attached copy of FIG. 3A, each strut labeled "A" and "B" has three spaced-apart bends (#s 2, 3, 4 and #s 6, 7, 8). Thus, independent claim 45 is allowable over Gray.

In addition, independent claims 27, 30, 38, 41, 50, 53, 61 and 64 have not been rejected based on any prior art.

Thus, it is respectfully submitted that all pending claims are in condition for allowance. The Examiner is encouraged to telephone the undersigned if there are informalities that can be resolved in a phone conversation, or if the Examiner has any ideas or suggestions for further advancing the prosecution of this case.


Respectfully Submitted,


Raymond Sun
Attorney for Applicant
12420 Woodhall Way
Tustin, CA 92782
Tel: 949-252-9180

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CERTIFICATE OF MAILING

I hereby certify that this paper and its enclosures are being deposited with the United States Postal service as First Class Mail in an envelope addressed to the Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on the date shown below.

Date: February 20, 2004 By: 
Donna Dice